



# UF150 ~ UF1510

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.5 Amperes

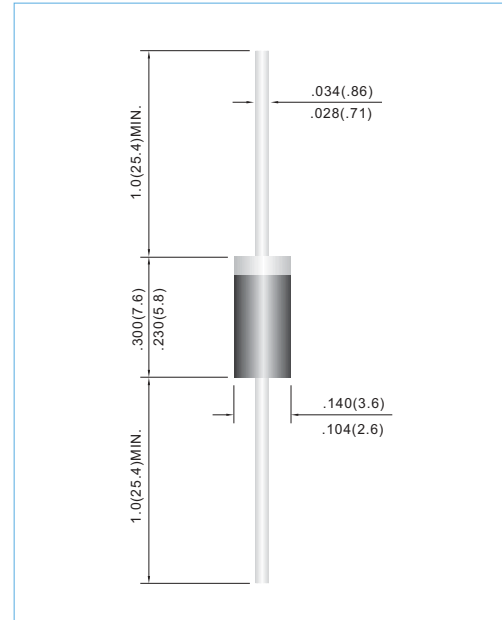
**DO-15** Unit: inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast recovery for high efficiency.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, DO-15
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.014 ounce, 0.397 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	UF150	UF151	UF152	UF154	UF156	UF158	UF1510	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.5							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	50							A	
Maximum Forward Voltage at 1.5A	$V_F$	1.0		1.1		1.7			V	
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$				10.0		500			$\mu\text{A}$
Typical Junction capacitance (Note 1)	$C_J$				25			pF		
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$				50			$^\circ\text{C} / \text{W}$		
Maximum Reverse Recovery Time (Note 3)	$t_{rr}$	50			75			ns		
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$	

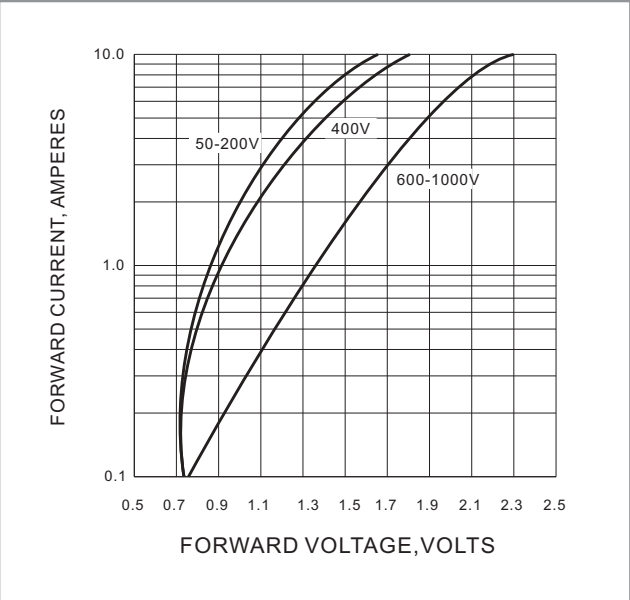
**NOTES:**

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient.
3. Reverse Recovery Time  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$

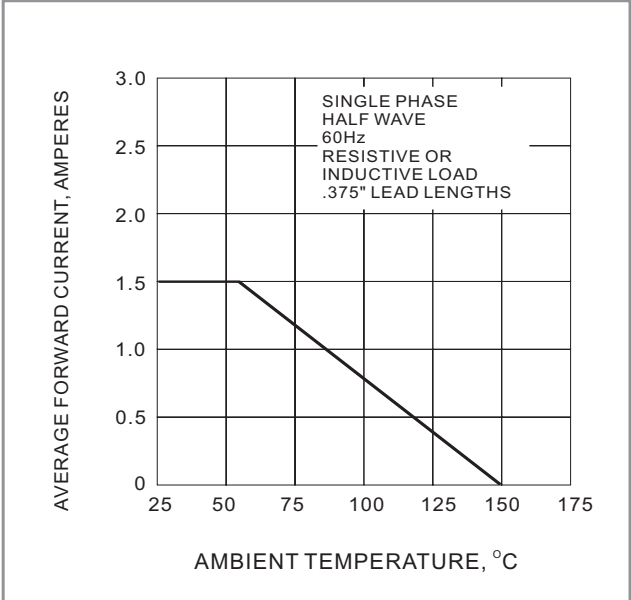


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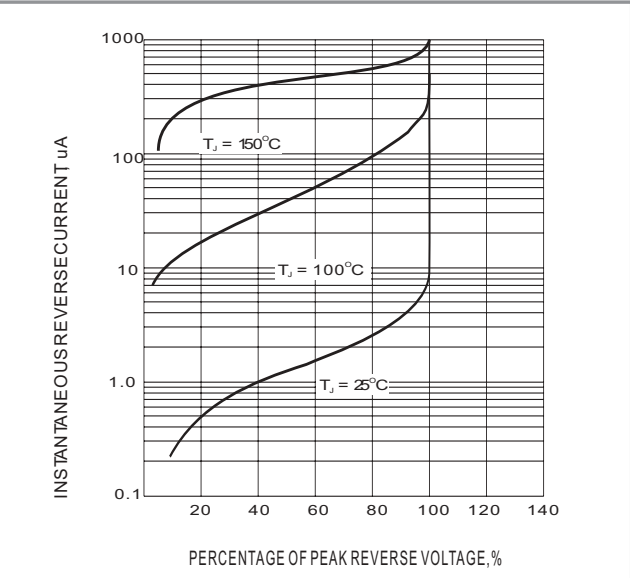
## RATING AND CHARACTERISTIC CURVES



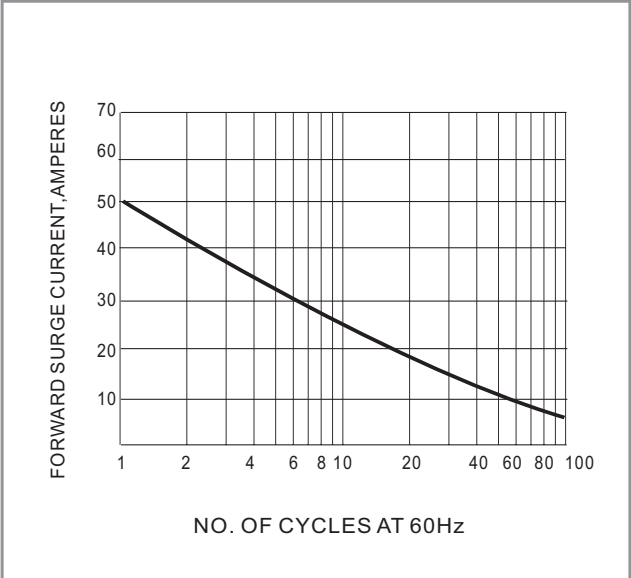
**Fig.1 FORWARD CHARACTERISTICS**



**Fig.2 FORWARD CURRENT DERATING CURVE**



**Fig.3-TYPICAL REVERSE CHARACTERISTIC**



**Fig.4 PEAK FORWARD SURGE CURRENT**